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(54) Abstract Title  
**Secure image mobile telephone.**

(57) The invention is a device that combines digital mobile telephone technology and digital camera technology within the enclosure of a mobile telephone to provide a mobile telephone that is capable of capturing images and storing them in a secure location on the Internet or other managed database. Subsequent retrieval of the image is possible through a password-protected system enabling the image to be viewed on the Internet or reproduced by authorised body in a printed picture form for personal identification evidence. Also, the device may allow initial transmission of low resolution images followed by later transmission of high resolution images.

The uses of the Secure Image Mobile Telephone include primarily personal protection from would be assailants by deterrent in a similar manner to the operation of CCTV systems but also leisure activities as defined by normal camera activities.

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## "Description"- Secure Image Mobile Telephone

### **Background and problem**

The use of mobile telephones have become commonplace and the users include all ages and sectors of society. Many parents have provided mobile telephones to their children as a security measure so that they may remain in contact in the event of a problem or pending problem. Provision of a mobile telephone for these purposes extends to spouses and the elderly. The mobile telephone has in this capacity become a great comforter and whilst it can be used to report or alert the presence of a would be assailant it is not a deterrent in the short term, in fact theft of the phone is sometimes the motive anyway.

Crime on the streets and in public places is a less desirable feature of every society and can affect anyone and is distressing even when it does not escalate beyond verbal abuse.

The introduction of Closed Circuit Television Cameras in many areas has had a marked effect on crime largely through its deterrent value but in addition has provided valuable evidence enabling detection of a crime that would not have otherwise been possible.

The invention combines the advantages digital mobile telephone technology and digital camera technology to provide a mobile telephone that is capable of capturing images and storing them in a secure location on the Internet or other managed database. Subsequent retrieval of the image is possible through a password-protected system enabling the image to be viewed on the Internet or reproduced by authorised body in a printed picture form for personal identification evidence. The uses of the Secure Image Mobile Telephone include primarily personal protection from would be assailants by deterrent in a similar manner to the operation of CCTV systems but also leisure activities as defined by normal camera activities.

The advantages of the system described is that any images may be captured in pursuit of normal leisure activities or a picture could be recorded inadvertently without undue consequences. This way review of photographs for evidence only becomes necessary if the user or their families so declare that such information is available as a record.

The deterrent value of carrying a secure image mobile telephone would be similar to that of CCTV but the deterrent would extend to kerbing theft or theft and subsequent malicious damage, theft already being a significant problem with mobile telephones.

### **The invention**

The invention resembles a typical digital mobile telephone with all features and options currently available. Built into the case of the telephone is a sub miniature digital camera. The telephone includes an additional key designated capture, by pointing the telephone at a scene and pressing the capture key the image is immediately stored and at the same time the telephone is activated enabling the images digital data to be transmitted via the telephone network where the image is stored in a secure location on the internet or a dedicated database for subsequent retrieval. Image retrieval is possible through a secure pin number thus only authorised operators of the unit may gain access.

A feature of the operation of the device is that picture that is captured is stored within the telephone in a high resolution form however to gain the fastest possible transmission the picture is transmitted in a low resolution format providing a complete image quickly and as transmission time permits the image is progressively enhanced to high resolution format.

The stored picture carries a date and time indicator and if required a location designation derived from the telephone network companies own call location data.

The invention includes the facility to display the captured image on the normal liquid crystal telephone display. Other optional features include integral light or flash for very low light conditions.

## "Claims"- Secure Image Mobile Telephone

- 1) The invention combines a digital camera capable of capturing still or moving pictures and the camera is housed within the enclosure of a mobile digital telephone and also available as a device to operate with an existing mobile telephone.
- 2) The invention utilises the combination of a digital camera and mobile telephone primarily as a crime deterrent to enhance personal security for the user.
- 3) The invention will capture a picture by the operation of a feature on the telephone and store the picture in high-resolution format within the memory of the device or removable memory media
- 4) The stored picture in the memory of the device is transmitted via the digital telephone network to a secure location on the Internet or a dedicated database.
- 5) The picture is transmitted almost simultaneously after capture in low-resolution format and as transmission time permits the picture is enhanced as further data is transmitted building a higher resolution picture in the database or on the Internet.
- 6) The picture can be retrieved by the registered owner of the telephone or approved body through the Internet using a password protected code.
- 7) The invention can be utilised to capture still or moving pictures of any nature and transmit them to a secure location.
- 8) The invention can display the captured picture on the normal liquid crystal or other flat screen telephone display on the device.
- 9) The flat screen telephone display may be used as a viewfinder for identifying the boundaries of the picture to be captured.
- 10) An enhanced lighting feature in the form of a light or xenon flash may be incorporated within the device for very low light level operation.
- 11) The invention may be provided to the public or other body on a contract basis that includes management of all the telephone services and image handling facilities
- 12) The local time and date of each picture is stored on the Internet or in a database.
- 13) An area location designation for each picture is stored on the Internet or in a database the location information being derived from the telephone network company's transmission/reception data.

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**Amended claims have been filed as followed**

**"Claims"**

- 1) A secure image mobile telephone personal security system comprising a mobile telephone with integral camera having forward facing lens mounted on the end or rear of a common enclosure that contains the telephone, processors, storage media and associated electronics for combined and simultaneous operation of the telephone and camera in a manner that will store internally a captured picture and associated time and date data and convey the said data over the GSM digital cellular network in a resolution format proportional to available transmission time to a secure location in a dedicated database or on the Internet for subsequent password protected retrieval, the entire picture capture and transmission process being activated by the operation of a single key on the telephone keypad or enclosure.
- 2) The invention as described in 1) wherein the data stored in the secure location database or Internet includes location information relating to the location of picture capture and derived from the telephone network Companies transmission/reception data.
- 3) The invention as described in 1) wherein the features are provided as a retrofit assembly that can attach to and operate with existing mobile telephones
- 4) The invention as describes in 1) wherein the pictures captured are still or moving (video).
- 5) The invention as described in 1) wherein the captured pictures are displayed on the normal liquid crystal or other flat screen telephone display on the device.
- 6) The invention as described in 1) wherein the flat screen telephone display may be used as a viewfinder for identifying the boundaries of the picture to be captured.
- 7) The invention as described in 1) wherein an enhanced lighting feature in the form of a light or xenon flash is incorporated within the device for low light level operation.



INVESTOR IN PEOPLE

Application No: GB 0121960.9  
Claims searched: - 1 -

Examiner: Matthew Males  
Date of search: 22 July 2002

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.T):

Int Cl (Ed.7):

Other: Online databases: WPI, EPODOC, JAPIO

**Documents considered to be relevant:**

Category	Identity of document and relevant passage		Relevant to claims
X, E	EP 1168810 A2	LABAUME - see attached English abstract and Figure 2A.	1 at least
X, E	EP 1154383 A2	SEMICONDUCTOR ENERGY LABORATORY - whole document but see abstract, and column 6, line 41 - column 7, line 9.	1 at least
X	EP 1133185 A2	NOKIA - whole document but see abstract and Figure 2A.	1 at least
X, E	WO 02/37179 A2	PHILIPS - whole document but see abstract and Figure 1.	1 at least
X, E	WO 01/97115 A1	KK EIGHTING - see abstract.	1 at least
X	WO 01/63926 A1	MATSUSHITA - whole document but see abstract.	1 at least
X	WO 97/26744 A2	ROBB - whole document but see abstract, page 12, fourth paragraph onward, particularly page 19, last paragraph - page 20.	1, 4, 7 at least
X	JP 2001111875 A (SANYO) 20.04.2001	(see attached English abstracts).	1 at least.

Document indicating lack of novelty or inventive step  
 Document indicating lack of inventive step if combined with one or more other documents of same category.  
 Member of the same patent family

A Document indicating technological background and/or state of the art  
P Document published on or after the declared priority date but before the filing date of this invention.  
E Patent document published on or after, but with priority date earlier than, the filing date of this application.

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